

Notice of Allowability

Application No.

10/600,195

Applicant(s)

LEVEY ET AL.

Examiner

Katherine W. Mitchell

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3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/30/2005.
2. ☒ The allowed claim(s) is/are 1-3,5,6,8,24-27,29-35 and 37.
3. ☒ The drawings filed on 02 October 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>20050808</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Paul Donovan on 8/15/2005.

The application has been amended as follows:

In the Claims:

2. Claim 1 has been amended to delete everything after line 3 " a head at said head end;" and replace it with

--a thread disposed about said shank, said thread having a drive flank facing said lead end and a pressure flank facing said head end, said drive flank and said pressure flank extending from said shank to meet and form a continuous, uninterrupted, helical outer edge crest such that said continuous outer edge crest is configured to include a substantially formed peak at each point along its length, said drive flank having a generally flat surface extending from said shank to said outer edge crest of said thread along substantially a length of said thread from said lead end to said head end; and

a series of spaced apart depressions in said pressure flank along at least a portion of the length of said thread, wherein said depressions are formed from said outer edge crest of said thread generally radially inwardly towards said shank in such a

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manner so as to retain said continuous outer edge of said thread, said depressions being further formed so as to extend inwardly along said pressure flank from said outer edge of said thread at least part of a width of said pressure flank between said shank and said outer edge of said thread, said depressions located entirely below the plane of the pressure face, in the direction of said lead end and having no projections extending above the plane of the pressure face in the direction of the head end.--

3. Claims 4, 7, 9, 28, and 36 have been cancelled.

4. **The following is an examiner's statement of reasons for allowance:** The closest prior art is discussed below. Pearson, US 113557, was found when updating the search for the amended claims. By this examiner's amendment, applicant is clear that the outer edge of the thread, the outer edge crest, is a continuous uninterrupted helical edge, with depressions located entirely below the pressure face, in the direction of said lead end and having no projections extending above the pressure face in the direction of the head end. The detents or indentations of Pearson clearly do not extend entirely below the plane of the pressure face, and it has projections clearly extending above the pressure face plane. Barth USP 4576534 specifically teaches in all the figures and col 2 lines 47-60 that the crest 32, 32a is not a substantially formed peak:

peak (pēk) *noun*

Abbr. pk.

1. A tapering, projecting point; a pointed extremity¹

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Capuano USP 4273175 and Ollis USP 3982575 do not teach that the depressions are entirely below the crest edge, and that there are no projections extending above the pressure face in the direction of the head end. Finally, Mosow USP 3339389 teaches a method of forming a fastener which can have alternately spaced recesses and projections. Note that if material is displaced by pressing, not cutting, dies, the material which is displaced to form a recess below the pressure face plane must then form a projection above the pressure face plane, since metal is essentially incompressible.

It is yet another object of this invention to provide a method of forming self-locking threaded fastening elements by rolling the fastening element between dies to form a screw thread on the element undersize relative to a standard threaded member with which the element is intended to be used, continuing the rolling of the threaded element between the dies to form a plurality of radial deformations in one face of the screw thread, the deformations being alternately spaced recesses and projections substantially normal to the first formed face of the thread resulting in a thread profile adapted for threaded engagement with a standard threaded member, such as a nut or tapped hole.

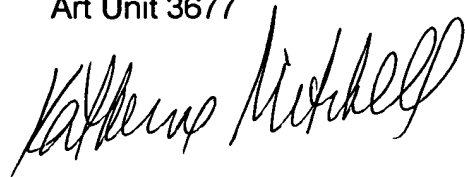
5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W. Mitchell whose telephone number is 571-272-7069. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Katherine W Mitchell
Examiner
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Kwm
8/15/2005